

Abstract of the Disclosure

An externally-powered prosthesis mechanism usable with persons with amputations at or proximal to the level of the metacarpophalangeal joint, as well as persons with high-level amputations. The prosthesis mechanism includes a grasping mechanism including a mechanically operable finger member and a mechanically operable thumb member kinematically linked to the finger member such that the grasping mechanism is disposed in respective opened and closed configurations when the finger member is respectively moved away from and toward the thumb member. The prosthesis mechanism further includes a drive system extending tangentially with respect to the grasping mechanism and including a motor operatively connected to drive at least one planetary gear stage, which is operatively connected to drive the grasping mechanism to the opened configuration when the motor is driven in a first direction and further drive the grasping mechanism to the closed configuration when the motor is driven in a second opposite direction.